



Institutional and Cultural Inertia

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Abstract

Today we are faced with multiple interrelated crises, for example the threat of catastrophic climate change or equally catastrophic thermonuclear war, and the threat of widespread famine. These threats to human existence and to the biosphere demand a prompt and rational response; but because of institutional and cultural inertia, we are failing to take the steps that are necessary to avoid disaster.

1. The Scope of the Crisis

Is the threat of catastrophic climate change as bad as people say it is? No; in fact it is much worse! The mainstream media shield us from the worst facts. To see this, we have to look north. A number of experts, such as David Wasdell, Director of the Apollo-Gaia Project, and Dr. Natalie Shakhova, Research Associate Professor of the International Arctic Research Center, have pointed out that curves based on observations indicate that possibly as soon as 2015, the Arctic will be free of sea ice in September, which is the month when ice is at a minimum. Arctic seas will of course refreeze during the winters, but the ice is observed to be thinner and more vulnerable to storms and before one or two decades have passed, sea ice will vanish entirely from the Arctic.¹

With the vanishing of Arctic sea ice, several dangerous feedback loops will come into play. Ice reflects sunlight, but dark water absorbs it, accelerating the warming of the region. Warmer waters will progressively release more water vapor into the atmosphere, where it acts like a greenhouse gas. Melting Arctic tundra will release large quantities of the potent greenhouse gas methane. Furthermore, the warming of the bottoms of shallow Arctic seas will destabilize the very large amounts of methane hydrate crystals found there, releasing much more methane and CO₂ into the atmosphere, and further accelerating the rise in temperatures. The Arctic is already roughly 3 degrees Celsius above the 1981-2010 average.²

In 2012, the World Bank issued a carefully-researched report which concluded that the world as a whole is presently on track for warming of 4 degrees C by the end of the 21st century, and if determined action is not taken to prevent it, the warming will not stop there.³

With higher temperatures, melting of the Greenland ice cap will accelerate. The time that will be needed for the complete melting of the Greenland ice cap is uncertain. It is predicted to take place within 1,000 years, but non-linear effects may cause it to take place much sooner. It is observed that lakes forming on the surface of the ice sheet during the summers drain down to the bottom of the sheet, where they lubricate the flow of the ice towards the sea. Complete melting of the Greenland ice cap would raise global ocean levels by about

7 meters, and the loss of Antarctic sea ice would add approximately 7 meters to the total. Coastal cities throughout the world are at risk.

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Rising ocean levels threaten to flood many low-lying regions of the world, such as the Netherlands, oceanic islands, parts of Vietnam, Bangladesh and Southern Florida, producing climate refugees and reducing global agricultural output.

Glaciers throughout the world are melting rapidly because of climate change.⁴ The continuation of this trend would threaten the summer water supplies of China, India and some parts of North and South America. This would also damage global agriculture at a time when population is increasing.⁵ Droughts and floods produced by climate change also threaten the world’s agricultural output.⁶ We have recently seen severe floods in Jammu and Kashmir,⁷ as well as unprecedented droughts in the South Western regions of the United States and in East Africa.

Thus, through several mechanisms, climate change threatens the world’s food supply. We must also recognize that a large fraction of global agricultural output depends heavily on high-yield modern agriculture (the “Green Revolution”), which in turn depends on the availability of fossil fuels, for producing chemical fertilizers, for driving farm machinery and for transportation of food. Not only is the use of fossil fuels one of the main causes of climate change, but also one can predict that both oil and natural gas will soon become very expensive.

We can see that by the middle of the present century, just as the global population reaches the unprecedented level of approximately 9 billion, the world’s food supply will deal a severe blow by the effects of climate change coupled with the collapse of modern high-yield agriculture. There is a danger that an extremely wide-spread global famine will then occur, which may produce billions of deaths, rather than millions.

Almost all scientists agree that the threats posed by climate change are very severe indeed, and yet the majority of governments fail to take the firm steps that will be needed to avoid its worst effects. To make matters worse, powerful lobbyists from fossil fuel industries have mounted massive advertising campaigns to convince the public that climate change is not real, that it is “a liberal hoax”. Thus we can see that dangers due to climate change are linked with dangers from the rise of economic inequality and corporate power, and to the decay of democratic government. Part of the blame must also fall on our servile and dishonest mainstream media.

2. Institutional Inertia

Our collective failure to respond adequately to the current crisis is very largely due to

institutional inertia. For example, international relations are still based on the concept of absolutely sovereign nation states, even though this concept has become a dangerous anachronism in an era of instantaneous global communication and economic interdependence. Within nations, systems of law and education change very slowly, although present dangers demand rapid revolutions in outlook and lifestyle. Our financial system is deeply embedded and resistant to change. Our entire industrial infrastructure is based on fossil fuels; but if the future is to be saved, the use of fossil fuels must stop.

“Extreme inequality, such as we have today, can also contribute to economic collapse.”

The failure of the recent COP20 climate conference in Lima to produce a strong final document can be attributed to the fact that the nations attending the conference felt themselves to be in competition with each other, when in fact they ought to have cooperated in response to a common danger. The heavy hand of the fossil fuel industry also made itself felt.

Corporations also represent a strong force resisting change. By law, the directors of corporations are obliged to put the profits of stockholders above every other consideration. No room whatever is left for an ecological or social conscience. Increasingly, corporations have taken control of our mass media and our political system. They intervene in such a way as to make themselves richer, and thus to increase their control of the system.

3. Economic Inequality, the Decay of Democracy, and the Danger of Nuclear War

A recently released study by Oxfam⁸ concluded that almost half of the world’s wealth is now owned by just 1 percent of the population. The report states that “Left unchecked, political institutions are undermined and governments overwhelmingly serve the interests of economic elites, to the detriment of ordinary people”.

Extreme inequality, such as we have today, can also contribute to economic collapse.⁹ The poor do not have enough money, and the very rich are too few in number to buy back the output of a society. This is a formula for economic recession. To avoid the inevitable downturn caused by excessive inequality, our oligarchic governments resort to what might be called “Military Keynesianism”.¹⁰ To prevent the crash of stock markets and banks, our corporate-controlled governments pour almost unimaginable amounts of money into perpetual wars. Enemies have to be found: communists, terrorists, the Islamic world, Russia, Iran, China, and so on. The corporate press keeps the public perpetually in fear of these “enemies”.

Although many countries have undemocratic and oligarchic governments, the decay of democracy is especially worrying in the United States. When Barack Obama was elected President, there was hope throughout the world that the gangster-like domestic and foreign policies of the Bush administration would change. On the basis of his campaign promises and his speeches in Prague and Cairo, Obama was even (prematurely) awarded a Nobel Peace Prize. But nothing changed. In fact, under Obama, perpetual wars and aggressive interventions in the internal affairs of other countries have become more flagrant and reckless than they were under Bush. At home, violations of the constitution and civil rights, as well as prosecution of whistle-blowers and militarization of the police have become the norm.

Why did Obama change overnight into a new and worse version of George W. Bush? Why do both Democrats and Republicans in the US Congress slavishly vote for the interests of the super-rich oligarchy, the military-industrial complex, the fossil fuel industry and Israel? Why do European politicians support the imperial goals of the United States? Are they being blackmailed through personal secrets revealed by all-encompassing NSA spying? Are they being bribed, or threatened, or both? We do not know. All we know is that the will of the people no longer counts for anything. In Frank Zappa's words "Government is the Entertainment division of the military-industrial complex". The corporate billionaire oligarchs are saying to us: "Vote for whomever you like; we own them all".

Under this system, Washington insiders have begun to believe their own propaganda. Influenced by ingrown "group-think", they exhibit symptoms of recklessness bordering on insanity. We can see this almost-insane recklessness most clearly in the recent attempt of the United States government to revive the Cold War by supporting a neo-Nazi coup against the elected government of Ukraine. The aim seems to be to provoke a conflict with Russia. Conflicts are, after all, needed to justify obscenely bloated military budgets. But a conflict between Russia and the United States could easily escalate into a nuclear war.

The centenary of the tragic outbreak of World War I reminds us of the dangers of escalation. We can also remember that none of the people responsible for the outbreak of that world-destroying conflict had any imaginative idea of what it would be like. They thought that it would be over in a few months. They visualized romantic and heroic cavalry charges. But the machine gun, long-range artillery and poison gas had changed the character of war. Similarly, it seems that none of the Washington hawks who today risk provoking a thermo-nuclear war with Russia have any imaginative idea of what such a war would be like.

Recent research shows that a large-scale nuclear war would be an ecological catastrophe, damaging global agriculture to such an extent that it could initiate a very large-scale famine involving billions of deaths, and severely damaging the biosphere. Furthermore, long-lasting radioactive contamination would make large areas of the world permanently uninhabitable.¹¹

4. Limits to Growth

Although never-ending exponentially-increasing economic growth on a finite planet is a logical impossibility, today's politicians and economists are almost universally committed to such growth. Their defiance of logic is achieved by refusing to look more than one or two decades into the future. We can gain some understanding of this self-imposed myopia by examining today's fractional-reserve banking system.

Fractional reserve banking is the practice whereby private banks keep only a small fraction of the money entrusted to them, and lend out the remaining amount. Under this system, profits from any expansion of the money supply go to the banks, rather than being used by the government to provide social services. This is basically fraudulent and unjust; the banks are in effect issuing their own currency.

When the economy contracts instead of expanding, the result is still worse. The depositors then ask the banks for their money, which is their right to do; but the banks do not have the cash. It has been lent out. Unless the government and the taxpayers are able and willing to save the banks, they collapse. This explains why politicians and economists fear a stationary

or contracting economy, and why they are so dedicated to limitless growth, despite the fact that it is a logical and mathematical impossibility.

Of course, it is necessary to distinguish between industrial growth and growth of knowledge and culture, which can and should continue to grow. Qualitative improvements in human society are possible and desirable, but resource-using and pollution-producing industrial growth has reached or exceeded its sustainable limits.

Because of the unrestricted growth of both industry and population, the earth is headed towards an ecological mega-catastrophe. According to Wikipedia, “Global deforestation sharply accelerated around 1852. It has been estimated that about half of the earth’s mature tropical forests have now been destroyed. Some scientists have predicted that unless significant measures (such as seeking out and protecting old-growth forests that have not been disturbed) are taken on a worldwide basis, by 2030 there will be only 10 percent remaining, with another 10 percent in a degraded condition. 80 percent will have been lost, and with them hundreds of thousands of irreplaceable species.”¹²

The world’s ability to feed its growing population is threatened by loss of fertile cropland through erosion, salination, desertification, loss of topsoil, urbanization and failure of water supplies. In China, India and in the southwestern part of the United States, water tables are being overdrawn and are falling at an alarming rate. For example, the Ogallala aquifer in the southwest US has a yearly overdraft of 160 percent.

If irrigation of arid lands is not performed with care, salt may be deposited so that the land is ruined for agriculture. Another type of desertification can be seen in the Sahel region of Africa, south of the Sahara.¹³ Rapid population growth has led to overgrazing, destruction of trees and wind erosion, so that the land has become unable to support even its original population. Often tropical rain forests are felled or burned for the sake of new agricultural land. However, the nutrients in the newly-cleared land are often quickly washed away by rains, so that the land becomes unsuitable for farming and has to be abandoned. Loss of fertile land also occurs when it is paved over by urban development.¹⁴

5. The Long-term Perspective

The interrelated threats to humans and the biosphere which we have been discussing become still more clear and severe if we consider the long-term perspective. For example, we mentioned climate change feedback loops resulting from the destabilization of methane hydrate crystals on Arctic sea floors. In the long term, there is a danger that melting of these crystals will occur at the bottom of oceans throughout the world. Geologists tell us that there have been five major extinction events in the past, in each of which more than half of all living organisms were lost. Many scientists believe that global warming by 10-15 degrees C due to the release of methane from ocean floors was the cause of these mass extinctions, and that unless prompt measures are taken to prevent it, there will be a danger of a human-initiated 6th mass extinction. The worrying thing about methane hydrate crystals at the bottoms of oceans is the enormous quantity of carbon which they contain, perhaps as much as 10,000 gigatons. One can put this enormous quantity into perspective by comparing it with the total amount of carbon emitted by human activities since the start of the Industrial Revolution: 337 gigatons.¹⁵

The danger of nuclear war also becomes clearer when we look far ahead. Suppose that each year there is a certain finite chance of a nuclear catastrophe, let us say 1 percent, then in a century the chance of a disaster will be 100 percent, and in two centuries, 200 percent, in three centuries, 300 percent, and so on. Over many centuries, the chance that a disaster will take place will become so large as to be a certainty. Thus by looking at the long-term future, we can see that if nuclear weapons are not entirely eliminated, civilization will not survive.

“Cultural evolution is responsible for the success of our species.”

Finally, the limits to growth become very clear if we look far into the future. One can argue about the exact future date at which particular non-renewable resources will become so expensive that they cannot be used economically, but one cannot argue that such a time will never come. Furthermore, exponential growth of any kind, whether it is growth of population or growth of pollution-producing and resource-using industry, cannot be continued indefinitely on a finite planet. For example, if the rate of increase is a modest 2 percent per year, then over 500 years, whatever is growing at that rate will have increased by a factor of 22,000. No one can maintain that the earth can support 22,000 times its present human population or 22,000 times its present industry.

6. Religious Conservatism

All known human societies have religions; and this is true not only of societies that exist today, but also of all past societies of which we have any record. Therefore it seems reasonable to suppose that the tendency to be religious is an intrinsic part of human nature. It seems to be coded into our genes. If evolutionary forces have produced the human tendency to be religious, then it must have some survival value. My own belief is that religion helps us because it is a mechanism for the preservation and transmission of human cultures.

All living organisms on earth hand on information from one generation to the next in the form of messages coded into their DNA and RNA. Humans are unique in having also evolved extremely efficient non-genetic methods for transmitting information from one generation to the next through our highly developed languages.

Cultural evolution is responsible for the success of our species. We dominate the earth because of cultural evolution. Thus, if religion is a mechanism for the preservation and transmission of particular cultures, it must have conferred a great advantage to those societies that possessed religion, and a tendency to be religious would have been favored by the Darwinian forces of natural selection, and this perhaps explains why it is now a universal part of human nature.

Throughout history, until recent times, the conservative role of religions in transmitting and preserving our cultural heritage has been a great advantage. However, the dangers that we are experiencing today demand quick changes in our patterns of thought and in our lifestyles; and here the conservatism of religion may be a disadvantage. For example, at a time when the exploding global population contributes to the severity of most of the dangers that we face, religious opposition to birth control has become inappropriate.

Furthermore, human history is drenched with blood from wars that have been fought in the name of religion. We can think, for example, of the Crusades, or the Islamic conquests in the Middle East, North Africa and Spain, or the wars between Catholics and Protestants in Europe, or the brutal treatment of the indigenous populations of Africa, and the Americas in the name of religion. The list by no means stops there. This is because religion is so closely associated with ethnicity and nationalism.

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The religious leaders of today have the opportunity to contribute importantly to the solution of the problem of war. They have the opportunity to powerfully support the concept of universal human brotherhood, to build bridges between religious groups by making intermarriage across ethnic boundaries, and to soften the distinctions between communities. If they fail to do this, they will have failed humankind in a time of crisis.

Although religion may be a part of the problems that we face today, it can potentially be part of the solution. Because of the all-destroying modern weapons developed through the misuse of science, we urgently need religious ethics, i.e. the traditional wisdom of humankind. Not only do the fundamental ethical principles of the world’s great religions agree with each other, but they also do not conflict in any way with science. If practiced, these principles would make war impossible, thus eliminating one of the greatest dangers that we face today, the cause of much of the suffering that humans experience.

The central ethical principles of Christianity can be found in the Sermon on the Mount and in the Parable of the Good Samaritan. In the Sermon on the Mount, we are told that we must not only love our neighbors as much as we love ourselves; we must also love and forgive our enemies. This seemingly impractical advice is in fact of great practicality, since escalatory cycles of revenge and counter-revenge can only be ended by unilateral acts of kindness. In the Parable of the Good Samaritan, we are told that our neighbor, whom we must love, is not necessarily a member of our own ethnic group. Our neighbor may live on the other side of the world and belong to an entirely different race or culture; but he or she still deserves our love and care.

Contrast this with the idea of “massive retaliation” which is part of the doctrine of nuclear deterrence! In nuclear retaliation, the victims would include people of every kind: women, men, old people, and infants, completely irrespective to any degree of guilt that they might have. As the result of such an attack, many millions of people in neutral countries would also die. This type of killing has to be classified as genocide.

When a suspected criminal is tried for a wrongdoing, great efforts are made to clarify the question of guilt or innocence. Punishment only follows if guilt can be established beyond any reasonable doubt. Contrast this with the totally indiscriminate mass slaughter that results from a nuclear attack!

Thus both the doctrine of nuclear deterrence, and the very existence of nuclear weapons, are completely contrary to the central ethical principles of Christianity; and not only to the principles of Christianity, but to those of every other major religion.

It is an interesting fact that the Golden Rule, “Do unto others as you would have them do unto you”, appears in various forms in all of the world’s major religions. The Wikipedia article¹⁶ gives a fascinating list of the forms in which the rule appears in many cultures and religions.

The Buddhist concept of karma has great value in human relations. The word “karma” means simply “action”. In Buddhism, one believes that actions will return to the actor. Good actions will be returned, and bad actions will also be returned. This is obviously true in social relationships. If we behave with kindness to our neighbors, they will return our kindness. Conversely, a harmful act may lead to vicious circles of revenge and counter-revenge. These vicious circles can only be broken by returning good for evil. However, the concept of karma has a broader and more abstract validity, beyond the direct returns of actions to the actor.

When we perform a good action, we increase the total amount of good karma in the world. If all people similarly behave well, the world as a whole will become more pleasant and more safe. Human nature seems to have a built-in recognition of this fact, and we are rewarded by inner happiness when we perform good and kind actions. In his wonderful book, “Ancient Wisdom, Modern World”, the Dalai Lama says that good actions lead to happiness and bad actions to unhappiness, even if our neighbors do not return these actions. Inner peace, he tells us, can only be achieved through good actions.

In Buddhist philosophy, the concept of karma, action and reaction, also extends to our relationship with nature. Both Hindu and Buddhist traditions emphasize the unity of all life on earth. Most Hindus regard killing an animal as a sin, and many try to avoid accidentally stepping on insects as they walk. The Hindu and Buddhist picture of the relatedness of all life on earth has been confirmed by modern biological science. We now know that all living organisms have the same fundamental biochemistry, and we know that our own genomes are more similar to than different from the genomes of our close relations in the animal world.

The people of the industrialized nations urgently need to acquire a non-anthropocentric element in their ethics, similar to the reverence for all life found in the Hindu and Buddhist traditions, as well as in the teachings of St. Francis of Assisi and Albert Schweitzer.* We need to value other species for their own sakes, and not because we expect to use them for our own economic goals.

Today a few societies follow a way of life similar to that of our hunter-gatherer ancestors. Anthropologists are able to obtain a vivid picture of the past by studying these societies. Usually, the religious ethics of the hunter-gatherers emphasize the importance of harmony with nature. As the expansion of industry threatens to produce an ecological mega-catastrophe, we can learn much from societies that live in balance with the natural world.

We can see from this discussion that religious conservatism cuts both ways. In some respects, it damages our response to the current crisis, for example when it supports war or opposes birth control. On the other hand, the ethical principles of the world’s great religions can help to save us.

* The simple life-style that we associate with St. Francis can also teach us much. St. Francis and St. Claire and many others who have followed in their footsteps lived lives of voluntary poverty and service, close to the ideals of Jesus himself, who said “Lay not up treasures on earth...”.

7. Shooting Santa Claus

No one wants to shoot Santa Claus. That goes without saying! Who would want to harm that jolly old man, with his reindeer and sleigh, and his workshop at the North Pole? Who would want to prevent him from bringing happiness to everyone? Who would want to stop him from making the children's eyes light up like stars? Surely no one!

But the sad truth today is that we have to get rid of Santa somehow, before he kills us, and before he kills most of the plants and animals with which we share our world. Perhaps shooting is too harsh. Perhaps we should just forget Santa and all that he stands for, with his red suit, invented by the advertising department of Coca Cola.

This is what Santa stands for: The customer is always right. Your wish is our command. You have a right to whatever you desire. If you feel like taking a vacation on the other side of the world, don't hesitate, just do it. If you feel like buying a SUV, just do it. Self-fulfillment is your birthright. Spending makes the economy grow, and growth is good. Isn't that right?

But sadly that isn't right. We have to face the fact that endless economic growth on a finite planet is a logical impossibility, and that we have reached or passed the sustainable limits to growth.

At Christmas, or New Year or the Carnival in New Orleans or Rio, or Bastille Day, or whatever festival one might think of, we do what we have always done. The feeling of continuity that we obtain from carrying out these ancient rituals gives us a sense of security. But sadly, the full, expensive celebration of festivals is becoming unsustainable and ecologically destructive. The very security that we seek in such traditional celebrations may be undermined by our unbridled orgies of consumerism.

In today's world, we are pressing against the absolute limits of the earth's carrying capacity, and further growth carries with it the danger of future collapse. In the long run, neither the growth of industry nor that of population is sustainable; and we have now reached or exceeded the sustainable limits.

The size of the human economy is, of course, the product of two factors: the total number of humans, and the consumption per capita. Let us first consider the problem of reducing the per-capita consumption in the industrialized countries. The whole structure of western society seems designed to push its citizens in the opposite direction, towards ever-increasing levels of consumption. The mass media hold before us continually the ideal of a personal utopia, filled with material goods.

Every young man in a modern industrial society feels that he is a failure unless he fights his way to the "top"; and in recent years, women too have been drawn into the competition. Of course, not everyone can reach the top; there would not be room for everyone; but society urges us all to try, and we feel a sense of failure if we do not reach the goal. Thus, modern life has become a competition of all against all for power and possessions.

When possessions are used for the purpose of social competition, demand has no natural upper limit; it is then limited only by the size of the human ego, which, as we know, is boundless. This would be all to the good if unlimited industrial growth were desirable; but today, when further industrial growth implies future collapse, western society urgently needs to find

new values to replace our worship of power, our restless chase after excitement, and our admiration of excessive consumption.

If you turn on your television set, the vast majority of the programs that you will be offered give no hint at all of the true state of the world or of the dangers which we will face in the future. Part of the reason for this willful blindness is that no one wants to damage consumer confidence. No one wants to bring on a recession. No one wants to shoot Santa Claus.

“It is up to the people of the world to make their collective will felt.”

But sooner or later a severe recession will come, despite our unwillingness to recognize this fact. Perhaps we should prepare for it by reordering the world’s economy and infrastructure to achieve long-term sustainability, i.e. steady-state economics, population stabilization, and renewable energy.

8. What then can we do?

On the 23rd of September 2014, the United Nations Climate Summit took place in New York.[†] Delegates and heads of state from around the world were shown images of the inspiring and heartfelt People’s Climate March, which took place on Sunday, September 21st.¹⁷ The organizers of the march had expected 100,000 participants. In fact, more than 400,000 came, and the march was unique in its artistic brilliance and ethnic diversity. On the same day 2,600 similar events took place in 170 nations throughout the world, with the participation of 600,000 people. The slogan of the march in New York was “To change everything, we need everyone”, and in fact, everyone came!

On that momentous September Sunday in 2014, the people of the world spoke with one voice on the urgent need to prevent the worst effects of climate change. They shouted loudly, “We do not want climate change! We want system change!” In her new book, “This Changes Everything”, author and activist Naomi Klein argues that the urgent need for action to avoid the worst consequences of climate change can unite people in the cause of other urgently needed changes, such as overthrowing oligarchy and re-establishing democracy.¹⁸

Pulitzer Prize-winning author Chris Hedges believes that widespread civil disobedience demonstrations will be necessary. Of course such demonstrations cannot be violent, since they would have no chance at all against today’s militarized, tank-driving police. But both Mahatma Gandhi and Martin Luther King have shown how effective non-violent campaigns can be as a tool for system change. And, as both Gandhi and King showed in their own lives, fearlessness is the key.

All of the technology needed for the replacement of fossil fuels by renewable energy is already in place.¹⁹ Much research and thought have been devoted to the concept of a steady-state economy.²⁰ The only thing that is lacking is political will. It is up to the people of the world to make their collective will felt.

We live in a time of crisis. We did not ask to be born at such a time, but history has given to our generation an enormous responsibility towards future generations. We must achieve a

[†] <https://www.youtube.com/watch?v=h5YaqcPEUNc>

new kind of economy, a steady-state economy. We must stabilize global population. We must replace fossil fuels by renewable energy. We must abolish the institution of war. We must act with dedication and fearlessness to save the future of the earth for human civilization and for the plants and animals with which we share the gift of life.

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Notes

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